WO 2004/020101 PCT/SE2003/001318

14

CLAIMS

- 1. A distributor plate adapted to be releasably
 5 mounted on a horizontal lower disc (4) of a rotor (1) of
 a vertical shaft impact crusher, said rotor (1) having an
 opening (8) for the intake of material to be crushed and
 at least one outflow opening (26) for material leaving
 the rotor (1), c h a r a c t e r i s e d in that the
 10 distributor plate (38; 138; 338) is an equilateral
 polygon as seen from above.
 - 2. A distributor plate according to claim 1, wherein the distributor plate (38; 138; 338) has a shape chosen among triangular, square, hexagonal, octagonal and nonagonal shapes.

15

20

25

30

- 3. A distributor plate according to claim 1 or 2, wherein the number of sides (50, 52, 54, 56, 58, 60) of the polygon being chosen such that the number of sides is 1, 2 or 3 times the number of outflow openings (26, 28, 30) of the rotor (1) to which the distributor plate (38) is to be mounted.
- 4. A distributor plate according to claim 3, wherein the number of sides (50, 52, 54, 56, 58, 60) is 2 times the number of outflow openings (26, 28, 30) of the rotor (1).
- 5. A distributor plate according to any one of the preceding claims, wherein at least one straight side edge (50) of the distributor plate (38) is adapted to be parallel to an outflow direction (B) of material leaving the rotor (1) and to be parallel and adjacent to a face (62) of a lower wear plate (14) protecting the lower disc (4) from wear.
- 6. A distributor plate according to any one of the preceding claims, wherein the distributor plate (38) at the centre of its lower face (84) has a recess (82) adapted to make the distributor plate (38) horizontally turnable around a vertical shaft (80) mounted on the

WO 2004/020101 PCT/SE2003/001318

5

30

35

15

lower disc (4), such that the position of the distributor plate (38) in relation to the lower disc (4) may be adjusted before mounting the distributor plate (38).

- 7. A distributor plate according to claim 6, wherein the recess (80) extends only through a part of the thickness of the distributor plate (38), the upper face (86) of the distributor plate (38) thus being unaffected by said recess (80).
- 8. A distributor plate according to any one of
 claims 6 to 7, wherein the distributor plate (38) has a
 lower surface (84) which is adapted to be located at a
 higher level than the upper surface of lower wear plates
 (14, 16, 18) protecting the lower disc (4) of the rotor
 (1), such that the distributor plate (38) may be adjusted
 without removing the lower wear plates (14, 16, 18).
 - 9. A distributor plate according to any one of the preceding claims, wherein the upper face (386) of the distributor plate (338) comprises an unbroken layer (342) of a hard metal, such as tungsten carbide.
- 10. A distributor plate according to any one of the preceding claims, wherein the distributor plate comprises mounting means (88) located at a vertical side edge (50) of the distributor plate (38) and adapted for the mounting of a vertical support (72; 206) fixing the distributor plate (38) to the lower disc (4) of the rotor (1).
 - 11. A rotor for a vertical shaft impact crusher, the rotor (1) having an opening (8) for the intake of material to be crushed, at least one outflow opening (26) for material leaving the rotor (1), and at least one lower wear plate (14) and a distributor plate (38) releasably mounted on a horizontal lower disc (4) of the rotor (1), c h a r a c t e r i s e d in that the distributor plate (38; 138; 338) is an equilateral polygon as seen from above, at least one straight side edge (50) of the distributor plate (38) being parallel to an outflow direction (B) of material leaving the rotor

WO 2004/020101 PCT/SE2003/001318

16

(1) and being parallel to and adjacent to a face (62) of the lower wear plate (14).

5